



Residence, River Forest, Ill.

Marx & Lutz, Architects, Chicago, Ill.

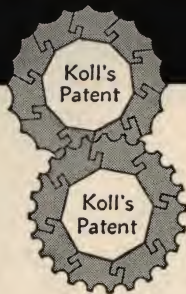
WOOD COLUMNS

**Koll's Patent
Lock Joint**

by **HARTMANN-SANDERS**



Lock-Joint WOOD COLUMNS by Hartmann-Sanders



Columns and Pilasters Caps, Bases and Plinths

Since 1900 the Hartmann-Sanders Company has specialized in the design and construction of quality columns for exterior and interior use—featuring the “Koll’s Patent” Lock-Joint wood stave construction which cannot come apart. Our factory of 40,000 square feet is the largest and best equipped plant of its kind in the country devoted exclusively to this class of work. The personnel in each department consists of experienced craftsmen, thoroughly trained architecturally and mechanically in the best traditions of column design and construction. Thousands of installations throughout the United States attest to the lasting qualities of these columns.

Designs and Other Products

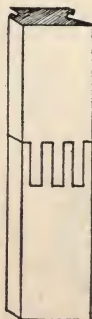
The designs of Hartmann-Sanders standard columns are based on proportions of the five orders of architecture. They can also be furnished in special designs, without additional charge, if they do not depart drastically from standard types.

Hartmann-Sanders will promptly furnish estimates according to the architect’s drawing and full size detail on the following items: special columns, pilasters, porch materials, colonial entrances for exterior and interior uses, and special architectural woodwork. Our experience with the above work enables us to correctly interpret the wants of the most discriminating architect. A Hartmann-Sanders representative will be glad to help you solve your particular problem.

Lock-Joint Columns and Pilasters

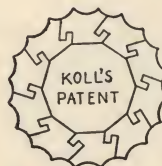
Carrying Capacity of Columns—Our columns are able to carry the weight of any wood cornice, pediment, or ordinary balcony without a structural timber or iron column on the inside. When necessary to use a structural support, columns are made in halves and doweled with hardwood dowels about three feet apart so that they can easily be taken apart before erection and put together with cold water glue. Clamps will be furnished on request, to be returned to the factory when they have served their purpose. Architects are cautioned not to permit blocking or wedging between the inside of the column and the structural post. This is important.

Splice Joint—In addition to the perfect lock-joint used to assemble the staves of the column, we have devised a dove-tailed joint, put together with waterproof glue under screw pressure, to splice the ends of the staves if the length of columns calls for material longer than can be secured in one piece. (See cut.) It is practically impossible to make a tight butt-joint without this splice illustrated at the right. These added features make our columns mechanically perfect.

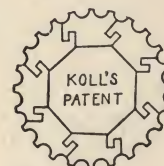


Correct Entasis—Shafts are turned in the lathe with the correct entasis. To assure uniform stave thickness and strength, the staves are straight one-third and gradual-tapered for the upper two-thirds—an outstanding Hartmann-Sanders feature. This compensates for the entasis and allows for fluting and necking coves without cutting too close to joint.

Fluting—Illustrated below are sections showing the two standard types of fluting.

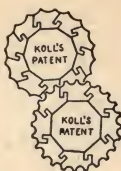


Section Showing Doric Fluting
on Design 215, 195



Section Showing Ionic Fluting
on All Other Column Designs

Stopping Flutes—The ends of flutes on Ionic fluted columns are stopped at top and bottom on a half circle by a special attachment on our machines, thereby emphasizing the strong lines and beauty of a fluted column. This is extremely important for correct architectural design of columns and pilasters.



Wood Columns

For Exterior Use



Harvard Memorial Chapel, Harvard University, Cambridge, Mass.
Coolidge, Shepley, Bulfinch & Abbot, Architects
Columns are 60" diameter, 28' long, Design 190

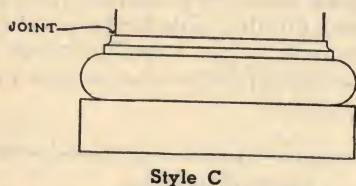
For Interior Use



Winnetka Congregational Church, Winnetka, Ill.
Aymar Embury, II, Architect
Columns are 24" diameter, 24' long

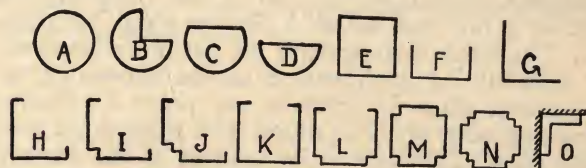
Thickness of Stock

Experience in column construction has demonstrated that the thickness of stock for the various sizes as shown in the table below will provide enough material to carry out the architectural detail properly and afford sufficient strength.



Types of Lumber—As Hartmann-Sanders columns are furnished with a guarantee, we reserve the right to use such lumber which in our opinion is the most enduring. With this thought in mind, for exterior columns we use clear heart California Redwood free from all sap, found from our experience to be the most durable for column construction. This lumber comes in lengths longer than average, and therefore, can be furnished with a minimum of spliced staves. Columns and pilasters for interiors are made in all woods.

Plan Types—The drawings below show the scope of Hartmann-Sanders column and pilaster plan types available.



Ventilation Inside the Column—To provide continuous circulation of air on the inside of the column, a hole should be bored through the column shaft above the neck bead where a wood cap is used or beneath the neck bead for composition caps. The hole to be located on the inside, facing the building.

Minimum Thickness of Stock

Plain Shaft	Up to 12 in. Dia. 10'0" long.....	1½ in. staves
	Above 10'0" long.....	2 in. staves
	13 in. to 22 in. Dia.....	2 in. staves
	23 in. to 38 in. Dia.....	3 in. staves
	39 in. and up.....	4 in. staves
Fluted Shaft	6 in. to 8 in. Dia. 10'0" long.....	1½ in. staves
	Above 10'0" long.....	2 in. staves
	9 in. to 20 in. Dia.....	2 in. staves
	21 in. to 36 in. Dia.....	3 in. staves
	37 in. and up.....	4 in. staves

Caps



Greek Ionic Composition Cap

Durabilt Composition Caps—All ornamental caps shown on the various column designs in this catalog are made in the Hartmann-Sanders factory of Durabilt hard texture composition, used exclusively by us. Because of its weatherproof and water resisting ingredients, this material is guaranteed to withstand the deteriorating influence of the elements. All stock models are made in accordance with proportions called for by the various orders of architecture. Facilities are available for making models for special caps from architect's details. When composition caps are to be used, suitable wood dowels are furnished without extra cost to carry the weight of the overhead work.

Wood Hand Carved Caps—Hartmann-Sanders is prepared to furnish wood hand carved caps, using its stock composition caps as models or making them according to the architect's own detail.



Flashing of Exterior Caps

If the entire top of exterior composition or wood caps is not covered with the flashing of galvanized iron, sheet lead or copper, the water, snow and ice that strike the cornice or fascia is bound to run into and down the cap, effecting its ultimate disintegration.

If the moisture has access from the top to the inside of the column, it will cause swelling of the material, thereby injuring the attractive appearance of the column. The flashing of galvanized iron, zinc or copper should be applied preferably at the factory or by the sheet metal contractor.

It should cover the entire top of the abacus and turn down over the top member at least ½ in. as illustrated above.

Architect's Specifications

In order to enable the architect to incorporate essential items in his specifications, we offer herewith a typical specification in two concise paragraphs. More detailed specifications are given to be used at the discretion of the architect by merely including a paragraph covering accessories. Any and all accessories will be included by the Hartmann-Sanders Co. only when specified to be furnished by the manufacturer.

"Columns shall be Koll's Patent Lock-Joint Staved Wood Columns, manufactured by the Hartmann-Sanders Co., Chicago, and New York, according to their design No. (here specify design number in catalog. If the design is to be made according to architect's drawings: "To be made according to architect's full size detail".) Staves shall be made of in. stock (here specify the thickness required. For schedule of thickness of staves necessary for the various sizes of columns see page 3.) Shafts, bases and caps shall be glued with waterproof cold water glue. Columns to be primed at the factory with a coat of white lead and oil. When ornamental caps are used specify "DURABILT COMPOSITION CAPS".

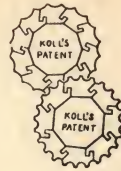
"Material shall be (here specify lumber, see page 3.) The tops of all capitals shall be flashed with (here specify sheet lead, copper or lead coated copper.) The square plinths shall be

(here specify ventilated wood plinths, ventilated cast iron plinths, aluminum plinths, or lead plates. The protection and installation of the columns shall be according to the instructions furnished by the manufacturer."

Installation

Should the columns arrive at the building before they can be installed, they must be stored in the building or properly protected with waterproof coverings in a thorough manner, including both ends and top of the column shafts. Do not lay columns directly on the ground. Hartmann-Sanders is not responsible for damages caused by improper care while the columns are on the job awaiting installation.

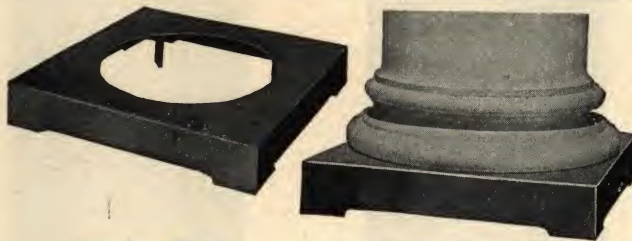
We recommend that after the bases are in place and before setting the shaft in position on the base that a heavy coat of white lead be applied to that part of the base which would be occupied by the shaft. Contractors are cautioned not to depend on the priming coat for an indefinite period after the columns are erected. We advise that the columns, caps and bases be given a second coat of paint immediately upon erection and we recommend three coats of paint over our priming coat.



Wood Columns

5c
Ha

Plinths



Cast Iron Plinth

Plinth in Position

Ventilated Cast Iron or Aluminum Plinths

When columns rest on cement, brick or stone floors, we recommend the use of ventilated cast iron or aluminum plinths. We have found from careful study that they fill a long-felt necessity. They not only eliminate the annoyance often caused by the deterioration of mitred wood plinths, but also provide for the circulation of air to the inside of the column shaft, which is a very essential feature. They are finished smooth and when painted on the job harmonize with the finish of the column.

Ventilated Wood Plinths—All exterior columns, with the exception of No. 190 and 195 are provided with ventilated wood plinths, unless otherwise specified.

Metal Plinth Dimensions

For Bottom Diameter of Shaft	Size of Square Plinth	Height	For Bottom Diameter of Shaft	Size of Square Plinth	Height
5 in.	6 3/4 in. sq.	1 3/8 in.	16 in.	21 1/2 in. sq.	3 3/8 in.
6 in.	8 in. sq.	1 3/8 in.	17 in.	23 in. sq.	4 in.
7 in.	9 3/8 in. sq.	1 3/4 in.	18 in.	24 1/4 in. sq.	4 1/4 in.
8 in.	10 3/4 in. sq.	1 7/8 in.	19 in.	25 3/8 in. sq.	4 1/2 in.
9 in.	12 1/8 in. sq.	2 1/8 in.	20 in.	27 in. sq.	4 3/4 in.
10 in.	13 1/2 in. sq.	2 3/8 in.	21 in.	28 3/8 in. sq.	5 in.
11 in.	14 7/8 in. sq.	2 5/8 in.	22 in.	29 3/4 in. sq.	5 1/4 in.
12 in.	16 1/4 in. sq.	2 3/4 in.	23 in.	31 1/8 in. sq.	5 1/2 in.
13 in.	17 1/2 in. sq.	3 in.	24 in.	32 1/2 in. sq.	5 3/4 in.
14 in.	18 3/4 in. sq.	3 3/8 in.	25 in.	33 3/4 in. sq.	6 in.
15 in.	20 1/4 in. sq.	3 5/8 in.	26 in.	35 1/8 in. sq.	6 1/4 in.

Lead Ventilating Plates—Recommended on Greek Doric Columns as well as the bottom of turned bases which rest on stone plinths. On the Greek fluted columns the plates are made to conform to the outline of the flutes. These plates are made 1/4, 1/2 or 3/4 in. thick in four parts with a space between each part to provide ventilation.

Ordering

Mention Hartmann-Sanders catalog number and in addition give the following information:

Columns—Give quantity wanted and size at largest and smallest diameter of shaft, thickness of staves and overall length.

State if for interior or exterior use.

A glance at Fig. 1 will show where measurements are usually taken.

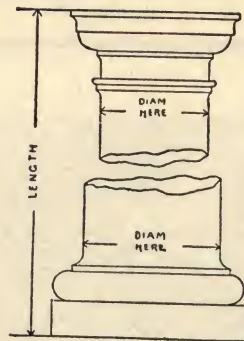


Fig. 1

Pilasters—When ordering pilasters to match columns, note that they are made three ways:

1. Pilaster face to have the same taper as column shaft.
2. Pilaster face to be the same width as top diameter of column shaft.
3. Pilaster face to be equal to half the difference between top and bottom diameter of column shaft.

Also give the dimension of the pilaster return. Refer to Fig. 1.

Plinths—Specify type of material to be used.

Flashings—Specify material if Hartmann-Sanders is to supply.

Caps—In ordering column caps give type, quantity and size required; also state whether for exterior or interior use. Diameter of columns should be taken where shown on Fig. No. 2 for Corinthian, Erechtheum, Composite, Angular Greek with Necking, Scamozzi with Necking, and Temple of Winds capitals, and for all other capitals, either according to Figs. 3 or 4, whichever way the neck of shaft is turned.

Unless otherwise specified, pilaster caps will be furnished with same shaft measurements as column capitals and returning one-half. Note line drawing Fig. 1 before ordering.



Fig. 2

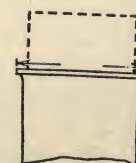


Fig. 3

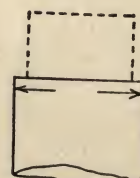


Fig. 4

Lock-Joint Wood Columns

Design 190 (illustrated)

Greek Doric column, plain shaft

Design 195 (illustrated)

Greek Doric column, fluted shaft

Design 230

Similar to Design 235 but with plain shaft

Design 235 (illustrated)

Roman Ionic cap, fluted shaft, Attic base

Design 240 (illustrated)

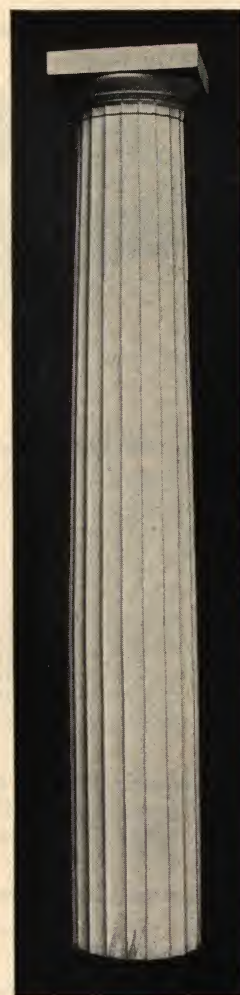
Scamozzi cap, plain shaft, Attic base

Design 245

Similar to Design 240 but with fluted shaft



Design 190



Design 195

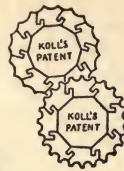
Hartmann-Sanders Installations



Residence at
Scarsdale, New York

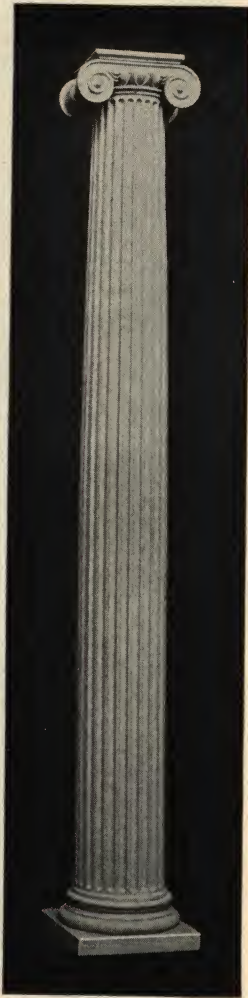
Edgar and
Verna Cook Salomonsky,
Architects, New York City

Columns are
9" diameter, 18' long



Wood Columns

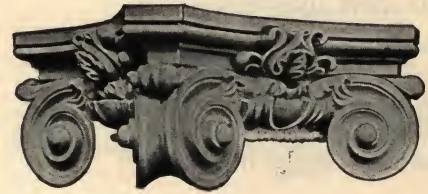
5c
Ha



Design 235



Design 240



Scamozzi Cap
Used on Design 240, 245



Roman Ionic Cap
Used on Design 230, 235

Residence at
Irvington, New York
Aymar Embury, II.
Architect, New York City



Hartmann-Sanders Company

Columns—Continued

Design 200 (illustrated)

Tuscan column, plain shaft

Design 205 (illustrated)

Tuscan column, fluted shaft

Design 260 (illustrated)

Greek Ionic cap, plain shaft, Attic base

Design 265

Similar to Design 260 but with fluted shaft

Design 270

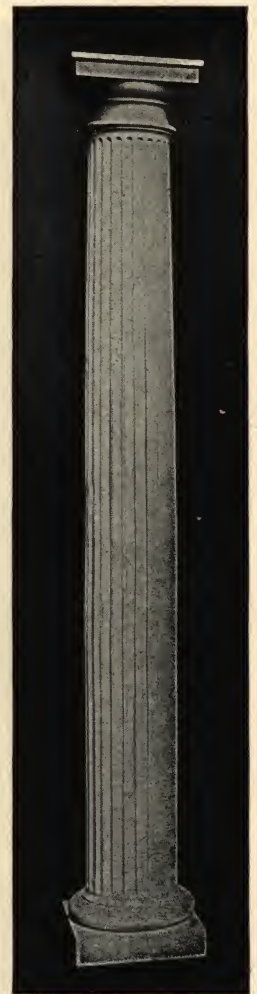
Similar to Design 275 but with plain shaft

Design 275 (illustrated)

Angular Greek Ionic cap, plain shaft, Attic base



Design 200



Design 205

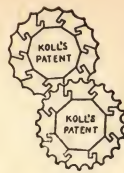


School Auditorium
Glencoe, Illinois

Warner, McCornack
and Mitchell,
Architects,
Cleveland, Ohio

John A. Armstrong,
Associate Architect,
Chicago, Illinois

Columns are
21" diameter, 25' long



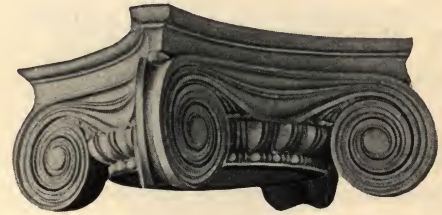
Wood Columns



Design 260



Design 275



Angular Greek Ionic Cap
Used with Design 270, 275



Greek Ionic Cap
Used with Design 260, 265

Residence at
White Plains,
New York

Donn Barber,
Architect.
New York City



Columns—Continued

Design 210 (illustrated)

Roman Doric column, plain shaft

Design 215 (illustrated)

Roman Doric column, fluted shaft

Design 250

Similar to Design 255 but with plain shaft

Design 255 (illustrated)

Corinthian cap, fluted shaft, Attic base

Design 280 (illustrated)

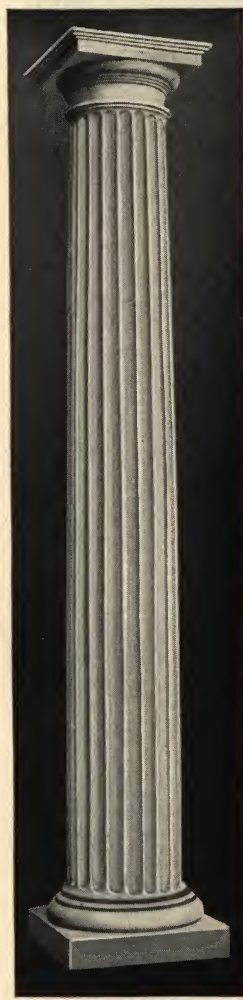
Angular Greek Ionic cap (with necking), plain shaft, Attic base

Design 285

Similar to Design 280 but with fluted shaft



Design 210



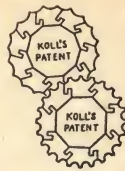
Design 215



Residence at Park Ridge, Illinois

Zook and McCaughey,
Architects, Chicago, Illinois

Columns are 20" diameter, 18' long
Design 240



Wood Columns

5c
Ha



Design 255



Design 280



Corinthian Cap
Used on Design 250, 255



Angular Greek Ionic Cap (with necking)
Used on Design 280, 285

Field House and Gymnasium,
University of Maryland,
College Park, Maryland

Henry Powell Hopkins, Architect
Baltimore, Maryland

Columns are 36" diameter,
28' long, Special Design



Hartmann-Sanders Company

Columns—Continued

Design 220 (illustrated)

Roman Doric cap, plain shaft, Attic base

Design 225

Similar to Design 220 but with fluted shaft

Design 290

Similar to Design 295 but with plain shaft

Design 295 (illustrated)

Erectheum cap, fluted shaft, Attic base

Design 330

Similar to Design 335 but with plain shaft

Design 335 (illustrated)

Temple of Winds cap, fluted shaft, Attic base



Design 220



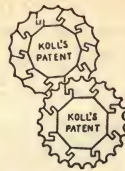
Design 225



Hinsdale Memorial Building,
Hinsdale, Illinois

Edwin H. Clark,
Architect, Chicago, Illinois

Columns are 20" diameter, 24' long



Wood Columns

5c
Ha



Design 295



Design 335



Eretheum Cap
Used on Design 290, 295



Temple of Winds Cap
Used on Design 330, 335

Metropolitan Life Insurance Co.
Housing Project "Parklabrea"
Los Angeles, California

Leonard Schultze and Associates
Architect, New York City

Starrett Brothers and Eken,
Incorporated, Builders,
New York City



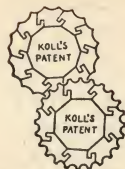
Hartmann-Sanders Company

Representative Applications of Wood Columns

Western Division Headquarters
Aetna Insurance Co., Park Ridge, Ill.
Victor L. Charn, Architect
Ragnar Benson Inc., Builder



Alteration to residence at Rocky Ford, Colorado. Smaller picture shows house before alteration. Columns are 20" in diameter, 19' 5" long, Design 335. Width of building is 44' 9".



Wood Columns

5c
Ha



St. Joseph's Church, Richmond, Illinois
Barry and Kay, Architects, Chicago, Illinois
Columns are 20" diameter, 15' 6" long,
Design 230

Chapel at Hanover College, Hanover,
Indiana
Jens Frederick Larson, Architect





Screened Porch at Winnetka, Ill.—Chatten & Hammond, Architects.



Middle College at Beloit College, Beloit, Wisc.—Allen & Webster, Archts.



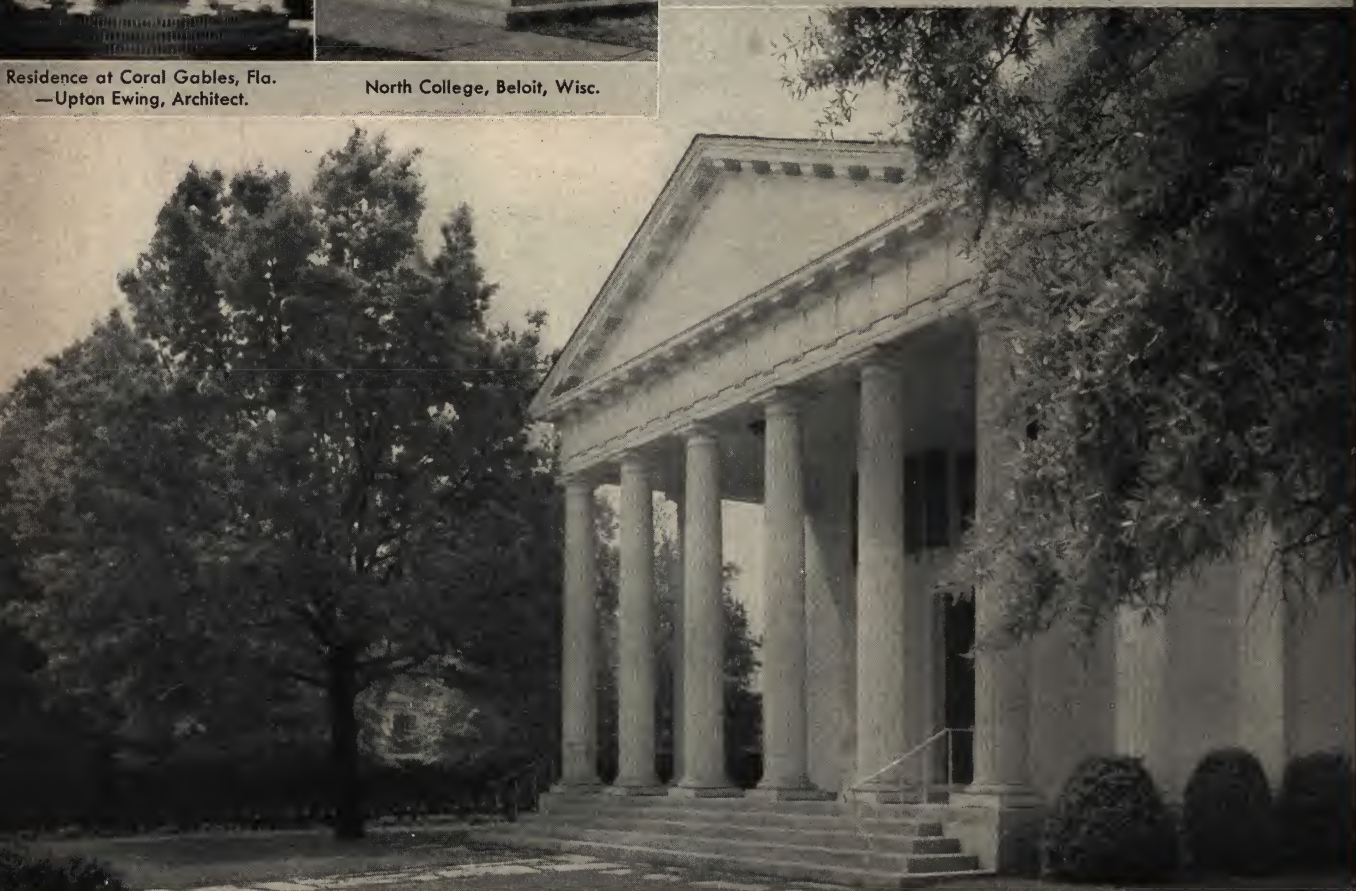
Residence at Coral Gables, Fla.
—Upton Ewing, Architect.



North College, Beloit, Wisc.



Residence at Lexington, Ky.



First Church of Christ Scientist, Charlotte, N. C.—Charles Draper Faulkner, Architect.

HARTMANN-SANDERS COMPANY

Main Office and Factory

2155 Elston Avenue, Chicago 14, Illinois
Telephone Brunswick 8-2868

Eastern Office and Showroom

101 Park Avenue, New York 17, New York
Telephone Murray Hill 5-6399

Digitized by:



ASSOCIATION
FOR
PRESERVATION
TECHNOLOGY,
INTERNATIONAL
www.apti.org

BUILDING
TECHNOLOGY
HERITAGE
LIBRARY

<https://archive.org/details/buildingtechnologyheritagelibrary>

From the collection of:

Carol J. Dyson, AIA